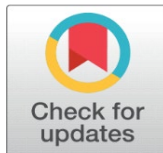
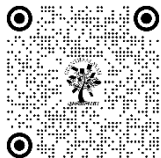


ENHANCING ENGLISH WRITING SKILLS IN ENGINEERING STUDENTS THROUGH A FLIPPED CLASSROOM APPROACH

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DOI

[10.29121/shodhkosh.v5.i1.2024.3983](https://doi.org/10.29121/shodhkosh.v5.i1.2024.3983)

Funding: This research received no specific grant from any funding agency in the public, commercial, or not-for-profit sectors.

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ABSTRACT

Students in the 21st century are looking for an educational system that supports their needs. The focus of teaching has shifted from being teacher-centered to student-centered through innovative methods. With technology and globalization advancing, strong communication skills in English are crucial for engineering students as they are key for employability. Communication is one of the 12 essential Programme Outcomes defined by the National Board of Accreditation (NBA). The four fundamental language skills—listening, speaking, reading, and writing (LSRW)—play a significant role in developing English communication abilities. While all these skills are important, writing serves as a foundation for effective verbal communication, yet it can be challenging to master without a solid grasp of the other three skills. This paper investigates how the Flipped Classroom approach can be effectively applied in English language classrooms to enhance the writing skills of 30 Third-Year B.E students, along with other essential 21st-century skills.

Background: The current teaching methods have evolved from traditional lectures to incorporating cooperative and collaborative learning, along with Information and Communication Technology in English classes. Some effective approaches include computer-assisted language learning, mobile-assisted language learning, project-based and problem-based learning, flipped classrooms, and task-based language learning. The present study examines how well the flipped classroom model helps improve undergraduate students' writing skills. The study focused on a group of college students enrolled in a writing course. In the flipped classroom approach, students watched recorded lectures and completed online activities before attending in-person classes. During these classes, they worked on writing tasks with their instructor's help. The research used a mixed-methods design, which included analyzing data from tests taken before and after the course to measure changes in writing skills. It also gathered student opinions through surveys. The results suggest that the flipped classroom approach is effective in improving students' writing. The test scores showed a significant improvement in their writing skills, and the students reported that the method was engaging, flexible, and beneficial for their learning. In conclusion, this study emphasizes the potential of the flipped classroom model to enhance writing skills in undergraduate students.

Keywords: Flipped Classroom, Communication Skills, Writing Skills

1. INTRODUCTION

Writing is a critical skill that undergraduate students must develop, as it plays a central role in both effective communication and academic achievement. However, many students face difficulties with writing, which can result in poor academic performance and limited future opportunities. Traditional teaching methods for writing often involve lectures followed by in-class writing exercises. While this method is commonly used, research suggests that it may not be as effective as more innovative teaching strategies in helping students improve their writing abilities.

One such innovative approach that has gained significant attention in recent years is the flipped classroom model. A flipped approach is not just a pedagogic model, it is a mindset as to what the teacher and students' roles are, and how best to support student learning (Bergmann & Sams, 2012). In a flipped classroom, the traditional structure is reversed: students first engage with the course material outside the classroom, often by watching pre-recorded lectures and completing online activities. The flipped model means that the input is given out of the class through digital video tutorials, and what was formerly done at home is now carried out in class. Thus, in class teachers can work with students in a one-on-one tutorial mode (Hamdan et al., 2013). A flipped classroom means that students are exposed to new content outside of the class through short videos, and then use the class time to further develop this knowledge through problem-solving, discussion, practice, and interaction with peers and teacher (Brame, 2013). When students come to class, instead of passively listening to lectures, they participate in active learning, such as discussions, group work, and collaborative writing activities, where they apply what they've learned. Thus the opportunity for peer teaching enables learners to take on the role of expert, or more able peer (Goldschmid & Goldschmid, 1976). Benefits of peer teaching include deeper understanding of course content, increased critical thinking, willingness to explore, and self-reflection (Yang & Wu, 2012; Velez, Cano, Whittington, & Wolf, 2011). This structure allows instructors to provide more individualized guidance, catering to specific student needs, while also fostering greater student engagement and interaction with the material.

The primary goal of this study is to explore the effectiveness of the flipped classroom model in the context of blended learning, specifically in enhancing students' writing skills. By examining this approach, the study aims to determine whether the flipped classroom provides a more effective, engaging, and supportive learning environment compared to traditional writing instruction methods.

2. LITERATURE REVIEW

Solanki D. Shyamlee (2012) argues that English Language Teaching (ELT) must evolve to integrate technology in order to enhance student learning outcomes. As the demand for learning English has increased globally, the need for qualified educators who can adapt to new teaching technologies has also risen. While some teachers utilize advanced technology in their teaching, a large number still rely on traditional methods.

Blended learning, which combines face-to-face instruction with online platforms, provides students with a mix of traditional and modern learning experiences, allowing them to engage in both structured and self-directed activities (Singh, 2017).

Hybrid form of education can be the new norm and it also permits the educationalists to reinvent and modify the subject matter principally in disciplines where trainers struggled to offer engaging and promoting learning experience for learners in an online mode of instruction (Rodriguez, 2020).

This hybrid approach to education is emerging as a new standard and allows educators to redesign and adapt course content, particularly in subjects where instructors have found it difficult to create engaging and motivating online learning experiences (Rodriguez, 2020).

Raval (2014) suggests that any innovation in the field of education must consider the role of audiovisual aids and their extensive use in teaching. However, according to Dörnyei (2003), implementing a blended learning model that successfully integrates traditional teaching methods with digital tools is not without challenges. It requires substantial changes at the institutional level and is often a complex process that can be difficult to initiate and sustain effectively.

3. METHODOLOGY

- 1) **Setting and Participation:** In August 2023, the researcher conducted a study at the Government Engineering College, Godhra, which is affiliated with Gujarat Technological University in Gujarat, India. The aim of the study was to explore the effectiveness of the flipped classroom strategy in enhancing student engagement and interest, particularly in improving writing skills. The participants in the study consisted of thirty undergraduate students, including 25 males and 5 females, all of whom were in their third year of studies. These students were enrolled in a specific course titled "Developing Writing Skills".
- 2) **Research design:** The researcher adopted a quantitative research approach and used a survey method to collect data on learners' attitudes toward blended learning and their interest in using technology for educational support. Data was gathered using Google Forms, an efficient and convenient tool that allows for

the rapid collection of information. In addition to gathering responses about attitudes toward blended learning, the study also collected demographic data from participants, including their age, gender, and preferred software applications for educational use.

3) Research Questions:

- What is the impact of using the flipped classroom strategy on students' academic performance?
- How does the flipped classroom strategy influence students' engagement and participation in the learning process?
- To what extent does the flipped classroom strategy enhance students' critical thinking skills compared to traditional classroom instruction?
- What are the perceptions of students regarding the effectiveness of the flipped classroom strategy in promoting self-directed learning and knowledge retention?

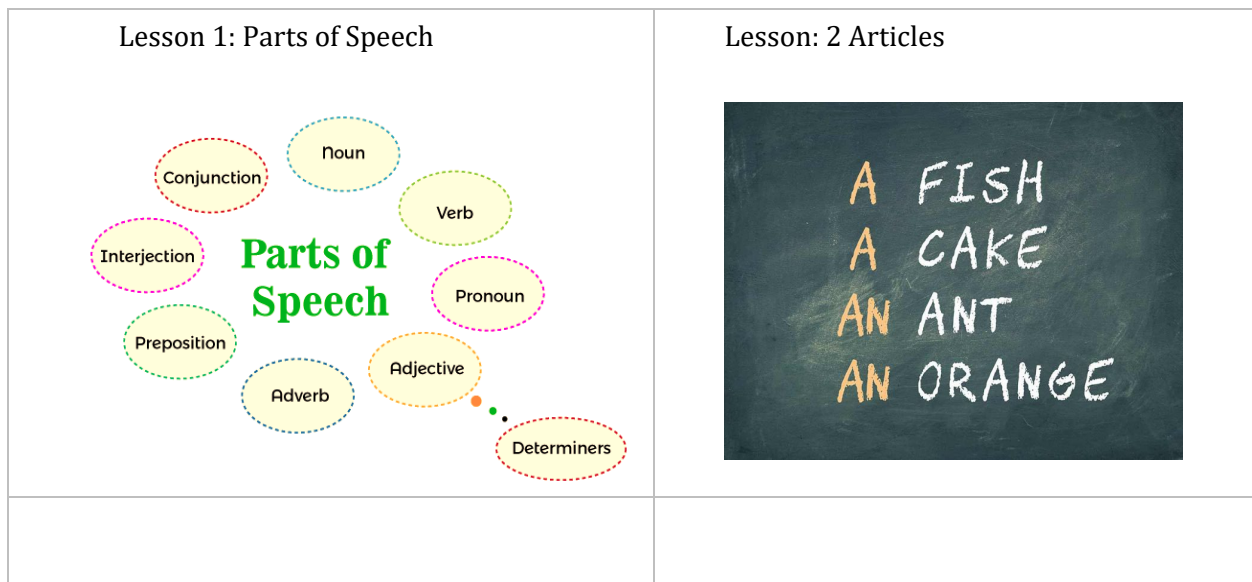
4. FLIPPED CLASSROOM APPROACH

The flipped classroom model has been recognized as an effective strategy for enhancing undergraduate students' writing skills. One of its primary benefits is that it enables students to engage with course materials outside of class, allowing for a deeper understanding and fostering more interactive and meaningful classroom discussions. As Hirathar (2013) observes, "The increasing use of technology in its varied forms in language education, via the Internet through multimedia learning, online learning, web-based learning, ICT, computer-mediated communication (CMC), and more recently technology-enhanced language learning (TELL), seems to have become a norm rather than an exception across various educational institutions."

In traditional classroom environments, students often take on a passive role, where they mainly listen to lectures and complete assignments with minimal opportunity for discussion or interaction. The flipped classroom, however, promotes active participation, requiring students to watch pre-recorded lectures and engage in online activities before attending class. This approach not only supports more personalized learning but also accommodates diverse learning styles and paces, helping students engage with the material more effectively.

Figures 1 and 2 illustrate the resources provided by the researcher, including the module content and pre-recorded lessons shared with students via online platforms. Throughout the course, the researcher collected both quantitative and qualitative data from students to assess the effectiveness of the flipped classroom approach in improving their writing skills. Additionally, weekly feedback and suggestions from students were gathered to help refine and enhance the learning process. Figure 3 illustrates about the students feedback of their views to study in flipped classroom method.

Figure 1



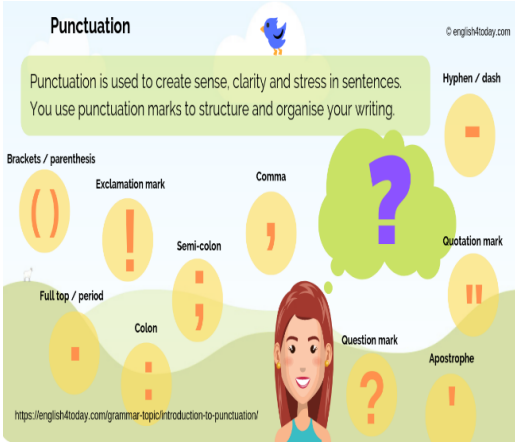
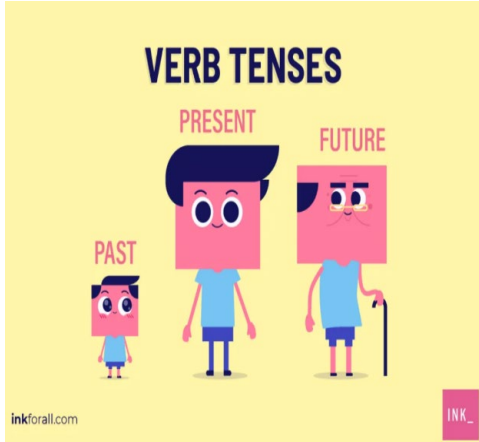
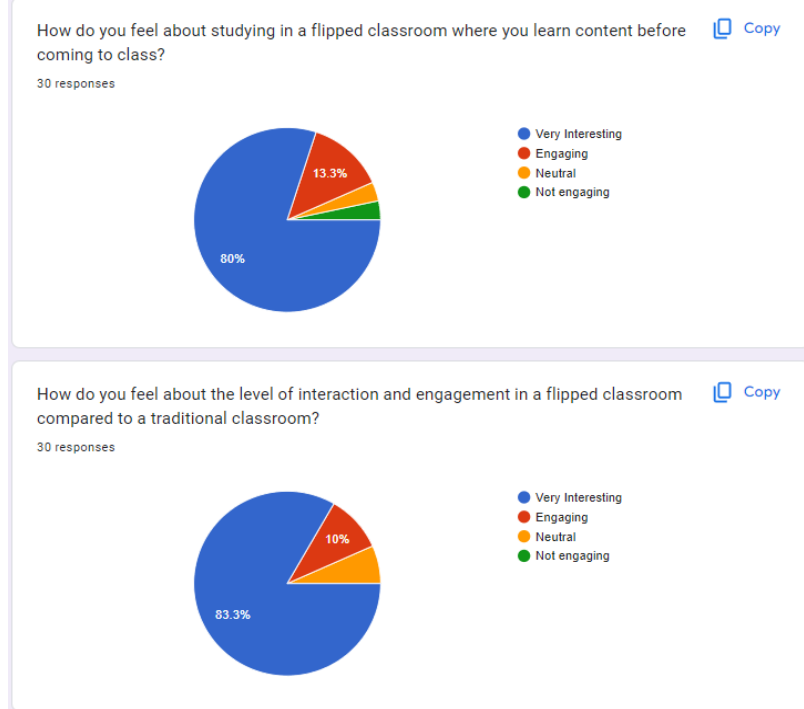
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Manual <u>Government Engineering College, Godhra</u> <u>Learning Modules</u> <u>Developing Writing Skills through Flipped Classroom</u> <u>For B.E Semester 5 Civil Branch Students</u> Index: <table border="0"> <tr> <td>1. Parts of Speech:</td> <td>Page 1.</td> </tr> <tr> <td>Activity 1</td> <td>Page 2</td> </tr> <tr> <td>Activity 2</td> <td>Page 4</td> </tr> <tr> <td>Activity 3</td> <td>Page 6</td> </tr> <tr> <td>Activity 4</td> <td>Page 9</td> </tr> <tr> <td>2. Articles:</td> <td>Page 12</td> </tr> <tr> <td>Activity 1</td> <td>Page 15</td> </tr> <tr> <td>Activity 2</td> <td>Page 17</td> </tr> <tr> <td>Activity 3</td> <td>Page 20</td> </tr> <tr> <td>Activity 4</td> <td>Page 24</td> </tr> <tr> <td>3. Tenses:</td> <td>Page 26</td> </tr> <tr> <td>Activity 1</td> <td>Page 29</td> </tr> <tr> <td>Activity 2</td> <td>Page 32</td> </tr> <tr> <td>Activity 3</td> <td>Page 34</td> </tr> <tr> <td>Activity 4</td> <td>Page 36</td> </tr> <tr> <td>4. Punctuation marks:</td> <td>Page 38</td> </tr> <tr> <td>Activity 1</td> <td>Page 39</td> </tr> <tr> <td>Activity 2</td> <td>Page 42</td> </tr> <tr> <td>Activity 3</td> <td>Page 43</td> </tr> <tr> <td>Activity 4</td> <td>Page 44</td> </tr> </table>	1. Parts of Speech:	Page 1.	Activity 1	Page 2	Activity 2	Page 4	Activity 3	Page 6	Activity 4	Page 9	2. Articles:	Page 12	Activity 1	Page 15	Activity 2	Page 17	Activity 3	Page 20	Activity 4	Page 24	3. Tenses:	Page 26	Activity 1	Page 29	Activity 2	Page 32	Activity 3	Page 34	Activity 4	Page 36	4. Punctuation marks:	Page 38	Activity 1	Page 39	Activity 2	Page 42	Activity 3	Page 43	Activity 4	Page 44	Content Name _____ Date _____ Grammar _____ Period _____ <u>PARTS OF SPEECH</u> There are eight parts of speech. Every word in the English language acts as one of these parts of speech when in a sentence. 1. Nouns 2. Pronouns 3. Adjectives 4. Verbs 5. Adverbs 6. Conjunctions 7. Prepositions 8. Interjections Some other important terminology in this packet is located in the conjunction section: > Subjects > Predicates > Clauses – independent and dependent > Fragments > Run-ons Steinberg
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Figure 2



Figure 3



5. MODULE BASED LEARNING SYSTEM

The data collected from the learners indicates a strong interest in technology-based approaches, which have shown positive outcomes. The use of a Learning Management System (LMS) with module-based learning has proven to be beneficial, as it helps students complete assignments and improve their writing skills in academic tasks. Each module includes tutorial videos and incorporates images, emojis, and cartoon elements, which positively influence and motivate students throughout the learning process.

- 1) **What is the impact of using the flipped classroom strategy on students' academic performance?**
The use of a module-based Learning Management System (LMS) that includes videos significantly affects students' learning outcomes, such as knowledge acquisition, skill development, and retention. This approach not only enhances academic performance but also positively influences students' motivation, engagement, and satisfaction with the learning experience compared to traditional classroom methods.
- 2) **How does the flipped classroom strategy influence students' engagement and participation in the learning process?**
The flipped classroom strategy promotes personalized and self-directed learning, effectively addressing the individual needs, preferences, and goals of each student. This individualized approach encourages greater student engagement and participation in the learning process.
- 3) **To what extent does the flipped classroom strategy enhance students' critical thinking skills compared to traditional classroom instruction?**
The flipped classroom strategy significantly enhances students' critical thinking skills while also fostering communication, collaboration, and creativity. This approach supports the development of higher-order thinking skills that are essential for academic success.
- 4) **What are the perceptions of students regarding the effectiveness of the flipped classroom strategy in promoting self-directed learning and knowledge retention?**
Students perceive the flipped classroom strategy as beneficial because it allows them to learn at their own pace, focus on their specific learning needs and interests, and receive immediate feedback and support. This individualized attention enhances their ability to retain knowledge effectively.

6. IMPLICATIONS AND CONCLUSIONS

The flipped classroom approach has shown potential in enhancing writing skills among undergraduate students. By allowing students to engage with course materials outside the classroom, they come to class better prepared and with a stronger grasp of the concepts. This enables instructors to focus more on the writing process during class time, offering guidance and feedback to support students' writing development. This study aims to examine the effectiveness of the flipped classroom model in improving writing skills among undergraduate students. By assessing the impact of this teaching method, we aim to provide insights into how to better equip students with the skills needed for both academic and professional success.

Moreover, the flipped classroom approach gives students more opportunities for feedback and personalized support from instructors. Instructors can dedicate more class time to working directly with students on their writing, offering feedback on drafts and helping them develop ideas. This is especially beneficial for students who struggle with writing, as they receive more individualized attention. The findings also suggest that the flipped classroom model can be applied in various educational settings, not just in writing courses. By flipping the classroom, instructors can create more interactive and engaging learning experiences that benefit students across all subject areas. Additionally, the approach's flexibility allows instructors to adapt their teaching to suit different students and courses.

Overall, the flipped classroom model has proven effective in improving undergraduate writing skills. Its key advantages, including increased student engagement, personalized support, and adaptability, make it a valuable strategy for any classroom setting.

CONFLICT OF INTERESTS

None.

ACKNOWLEDGMENTS

None.

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